

# Desert Storm and the Lessons of Learning

JOSEPH J. COLLINS

© 1992 Joseph J. Collins

Desert Storm promises to rank with "1914," "Munich," and "Vietnam" as a powerful source of lessons for policymakers. Our involvement began with a clear-cut case of Iraqi aggression, followed by a million-soldier conflict. It ended in a decisive military victory for the US-led Coalition. The war was media-intensive, and, along with the events that followed, it had wide-ranging political consequences, some of which are still taking shape. Burned into our collective consciousness, Desert Storm will, for better or worse, be a benchmark for future US defense policy and military art.

It is axiomatic that those who fail to heed the lessons of history are doomed to repeat its follies. However, the sages rarely remind us how difficult this learning process is. A full disclosure would show that decisionmakers, uniformed and civilian, often fail to learn effectively from experience. Their mistakes range from costly to catastrophic.

Complex operations like Desert Shield and Desert Storm will require careful evaluation, not only in light of what happened there, but also in light of what we know about learning from war. Five observations, informed by interpretive history and the emerging literature about Desert Storm, will move us toward that end.<sup>1</sup>

- *First, accurate and timely lessons count, but even concerted effort is no guarantee of success in learning them.*

In postwar eras, learning failures have been frequent and costly. Three types of learning failures are common: linear projection, in which the future is seen as a direct extrapolation from events of the past; hasty, ill-considered adaptations; and fixation on past individual or national successes.

The much-belittled generals who have prepared to fight the last war are familiar figures. In varying degrees, they all projected the future as a linear

<b>Report Documentation Page</b>			Form Approved OMB No. 0704-0188	
<p>Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p>				
1. REPORT DATE <b>1992</b>	2. REPORT TYPE	3. DATES COVERED <b>00-00-1992 to 00-00-1992</b>		
4. TITLE AND SUBTITLE <b>Desert Storm and the Lessons of Learning</b>		5a. CONTRACT NUMBER		
		5b. GRANT NUMBER		
		5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)		5d. PROJECT NUMBER		
		5e. TASK NUMBER		
		5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>US Army War College ,ATTN: Parameters ,122 Forbes Avenue ,Carlisle,PA,17013-5238</b>		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)		
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>				
13. SUPPLEMENTARY NOTES				
14. ABSTRACT				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:		17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>13</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>		

development from a key event in the past. Before World War I, European military leaders misjudged the balance between offensive and defensive combat, believing that short, decisive wars—like the Franco-Prussian War—would be the norm. Frontal assaults, profligate slaughter, and four years of destructive trench warfare were the result of these and other misjudgments. Had European leaders correctly estimated the battlefield effects of their weaponry, they might have used better military judgment in the war. Perhaps if they had understood the paralyzing advantages of the defense and the high casualties inherent in offensives, they might have avoided war altogether.

Astoundingly, despite considerable effort on its part, France made a reciprocal error in the interwar years. Based on its experience in World War I, it overemphasized the power of the defense. Although France took account of mechanization, its “new weapons essentially remained tied to old ideas.” With a force equivalent to Germany’s in size and in number of weapon systems, France and its allies were defeated in six weeks by an army with more refined concepts and a better sense of the possible.<sup>2</sup>

In a similar vein, there have been instances in which overzealous leaders have hastily seized on incorrect lessons of the recent past and later paid a stiff price for their mistake. For example, in 1939, Stalin—having purged many of his armor experts—concluded, based on the experience of the Spanish Civil War and the control problems his tank formations experienced in Poland, that large tank formations were unwieldy and ineffective. He ordered the immediate reorganization of his embryonic tank corps into smaller units for infantry support. After Germany’s successful blitzkrieg in France, Stalin changed his mind, but it was too late. In June 1941, the Soviet army was caught between organizational designs. The rest, as they say, is history.

Professor Robert Jervis reminds us that past success can also be the cause of future failure. As though blinded after a brilliant flash of light, leaders tend to see current situations as resembling those of past policy successes. Dazzled by their own statesmanship or the nation’s good fortune, they overestimate the degree to which national policy was central to success and apply a previously successful policy to changed circumstances.

Jervis notes, for example, that in 1941 Japan believed it could fight a limited war with the United States because it had done so 36 years previously

---

Lieutenant Colonel (P) Joseph J. Collins is an associate professor in the Department of Social Sciences, US Military Academy. From 1989 to 1991 he served as the Military Assistant to the Under Secretary of Defense for Policy, and from 1987 to 1989 as a Special Assistant to the Army Chief of Staff. He holds a Ph.D. in international relations from Columbia University and is the author of *The Soviet Invasion of Afghanistan* (Lexington Books, 1986), as well as many articles on national security affairs. Lieutenant Colonel Collins is a member of the Council on Foreign Relations.

with Czarist Russia. A successful covert operation in Guatemala in 1954 inspired 1961's Bay of Pigs fiasco. Norway thought it could stay out of World War II because it had successfully remained neutral in World War I.<sup>3</sup> Other analysts have noted the discomfiting role that Soviet success in Czechoslovakia in 1968 played in their invasion of Afghanistan in 1980.<sup>4</sup>

In the case of Desert Storm, Saddam's strategy was to absorb the effects of our air attack and inflict great casualties on the Coalition on the ground, where he believed he held a comparative advantage. An attempt to widen the war by missile strikes on Israel would further threaten the Coalition and add to the carnage. He apparently believed that the Western public would quickly demand an end to a highly destructive war, leaving Saddam with at least part of Kuwait and, more important, the scepter of Arab leadership.

Drawing on the legacy of his recent victory over Iran to accomplish these ends, Saddam Hussein deployed his forces in Kuwait in an inflexible manner, with immobile front-line infantry units dug in as if they were waiting for an Iranian frontal assault. They were backed by only slightly more flexible counterattack forces. Iraq's poor intelligence and inflexibility transformed tactics that had worked well against Iran on Iraqi territory into a catastrophic failure when they were used to counter a more mobile Coalition in Kuwait.

The causes of all of these failures to learn effectively are as varied as the cases: stupidity, poor information, misperception, the stress of time, organizational predilections, politics, and inflexible or inaccurate military doctrine. Historian Jay Luvaas made a comment seven years ago which serves as an apt warning to those who would know and apply the lessons of Desert Storm:

We should understand the reasons why military men in the past have failed sometimes to heed the correct lessons. Often, it has been the result of an inability to understand local conditions or to accept another army or society on its own terms. Sometimes, the guidance to observers has been so specific that the major lessons of war went unheeded simply because observers had not been instructed to look in different directions. . . . Sometimes, doctrine has narrowed the vision or directed the search, as in the case of the French army after World War I. Often, there has been a failure to appreciate that once removed from its unique context, a specific lesson loses much of its usefulness.<sup>5</sup>

- *Second, the lessons one learns are influenced—for better or worse—by interests, ideology, and perception.*

What's good for the goose may seem foul to the gander. Consider the lessons of Vietnam and their effect on Soviet policy toward Afghanistan. Two experienced US analysts concluded that while the lessons the United States drew from Vietnam would have counseled restraint by the USSR in Afghanistan, "the lessons the Soviets drew . . . did not warn them of the dangers of such an intervention by Soviet forces. On the contrary, the frequent assertion that aid



VII Corps, SFC Jackson Powell

**"Burned into our collective consciousness, Desert Storm will, for better or worse, be a benchmark for future US defense policy and military art."** Here the 2d Brigade, 3d Armored Division, masses in the Saudi Arabian desert on 24 February 1991 prior to crossing the Iraqi border.

from the Soviet Union and other socialist countries had been important in Vietnam may have increased their propensity to intervene in Afghanistan.<sup>6</sup>

Different countries may draw different lessons from Desert Storm. Some may believe that if they step out of line, the world policeman will arrest them. Others may step up their efforts to develop military power for their own purpose or to compete with the United States. In that light, the effect of Desert Storm on China and the states of the former Soviet Union should be carefully weighed.

The Russian military will have a strong incentive to learn from Desert Storm. The war was the general staff's worst nightmare: the revolution in military affairs (which they had talked about for over a decade) arrived while they were preoccupied with domestic matters and years behind in some conventional technologies. Russian experts might perceive that the Gorbachev-era doctrine of "reasonable sufficiency," which relies on a stiff defense followed by a counterattack, is outmoded after Desert Storm. Accordingly, a reinvigorated general staff might, some years hence, return to more offensive operational concepts, a traditional bias. While the military's defense of the quality of the weapons provided by the USSR to Iraq often appeared hollow and self-serving, real concerns could, in the long term, push more resources into the research and development accounts to improve air defense and continue development of their "reconnaissance-strike complexes" (space-based reconnaissance, surveillance, and target-acquisition systems linked in real time to long-range strike means). In all, based on "their" lessons from Desert Storm, we may expect a long-term effort from aspiring world powers to redress US

advantages in military power. One of these powers will surely be the entity that we now hesitatingly call Russia.<sup>7</sup>

Other states may also attempt to change the security calculus in a given region by improving their forces and weapon inventories. It is a safe bet that trends in the proliferation of nuclear, chemical, and biological weapons will continue or accelerate. The Department of Defense estimates that by the year 2000, 15 developing nations will have a ballistic missile capability; eight of these nations may also be nuclear-capable. Thirty nations may have chemical weapons; ten may have biological weapons. More than a dozen developing nations already possess large and capable armored forces. Other potential opponents, noting US superiority in conventional warfare, may hone their skills in insurgency or other forms of low-intensity conflict. In brief, there will be as many sets of Desert Storm lessons as there are learners. We need to be aware of both "our" lessons and "their" lessons.

- *Third, technology-inspired lessons from a single war are likely to have a very short life, and a single war will seldom prove the long-term utility of any branch of service or component of the force.*

Tracing the development and use of weapon systems and forces across a few wars permits useful observations. In Israel's Six Day War of 1967, the tank-fighter combination was king. However, in the Yom Kippur War in 1973, air defense and antitank guided missiles provided a serious challenge to their opposing systems. In 1973, to meet the new threat, the Israeli Defense Forces needed more infantrymen, mortars, and armored personnel carriers, all of which had been downplayed after 1967. In 1982 in Lebanon, the fighter aircraft, aided by drones and electronic warfare equipment, soundly defeated air defense systems. In Desert Storm, the stealth fighter, precision-guided munitions, and the attack helicopter became key variables in both the air war and the armor battle. They also soundly defeated Iraqi air defenses.

In the tanker war in the Persian Gulf, surface naval vessels carried the day, but in Desert Storm, except for their yeoman work on the blockade and their use as cruise missile platforms, they were less important. In the past, the Navy's carrier-based fighters have often been the only air support for US forces in Third World contingencies. In Desert Storm, they were an adjunct to the more numerous and better-equipped Air Force fighters. Neither of these combat air elements played a decisive role in Urgent Fury (Grenada) or Just Cause (Panama), but land-based air was the principal weapon for almost 90 percent of Desert Storm. Eight Army and two Marine divisions—overall, a relatively large and heavy land force—carried the 100-hour land battle. Unlike in Grenada, the Marines did not make an amphibious landing, although the existence of that capability created an effective deception, keeping at least six Iraqi divisions oriented on the coastal defense mission.

---

***There will be as many sets of Desert Storm lessons as there are learners.***

---

These cases exemplify no easily discernible pattern or trend. Even holding the human factor constant, one war's experience with forces and weapon systems is an imprecise guide to the course of the next conflict. The utility of a particular service or branch has varied with the character of a particular war. Moreover, weapon-system lessons from today's war may be barely applicable to tomorrow's. Next month you may have to make significant changes; by next year the changes may be extreme, even if you happen to be in the same theater.

Thus, while Desert Storm demonstrated the value of the stealth fighter and the need for real-time reconnaissance and strike assets for use against relocatable targets like the SCUD missile, it did not, by itself, make a convincing case for the stealth bomber or any particular stealth fighter. The Patriot missile's success against the SCUD did not justify any particular SDI system, although it did point out the need for theater protection against an ever-growing arsenal of ballistic missiles. In a similar vein, Desert Storm alone cannot justify a greater (or lesser) role for any of the services or any of their primary conventional capabilities.

Overall, success in past battles is only one input in the development of weapon systems and the design of forces. Technological possibilities, threat capabilities, and doctrine will also play key roles. If anything, the wars discussed above suggest that no one can safely predict which of the services will be the centerpiece of the next conflict, pointing toward the necessity of a balanced force and robust unified commands, fully capable of tailoring and employing the forces needed.

Finally, analysts should be aware that the efficacy of various weapon systems or major force components may change drastically, even within the same war. While this was not a factor in Desert Storm, it is an important issue for both lesson-learners and lesson-appliers. One clear example of this phenomenon was General MacArthur's use of strategic air power. In World War II, MacArthur, poor in ground forces, used long-range bombers to great effect against the Japanese. In 1950, he used them with marked success against relatively heavy North Korean formations and later predicted great success if Chinese formations were to intervene. However, he failed to understand that strategic air power would not be equally effective against the lighter, more

flexible, night-moving Chinese People's Liberation Army. The Eighth Army and X Corps paid for his miscalculation.<sup>8</sup>

- *Fourth, learning about war is complicated by the human factor, which includes the state of unit and individual training, as well as other intangibles such as individual morale, esprit de corps, and discipline.*

The experience of modern wars suggests that human factors are more powerful than technology. (In that light, we can only applaud DOD's fierce defense over the last decade of expenditures for the recruitment and retention of quality personnel, the sine qua non of military power.) Moreover, it is particularly hard to separate technological considerations from their human aspects. On this issue, the findings of the Center for Strategic and International Studies in its report, *The Gulf War: Military Lessons Learned*, appear sound: "High technology weapons and military systems are useless in the abstract. . . . US investment strategy must reflect that international coalitions, training, strategy, and other factors are just as important to winning wars as expensive weapons."<sup>9</sup>

These seemingly obvious facts may well be disputed in years to come. The advocates of high-technology weapon systems have already begun to overstate the benefits of such weapons. For example, former Under Secretary of Defense William Perry, writing in *Foreign Affairs*, claimed:

In Operation Desert Storm the United States employed for the first time a new class of military systems that gave American forces a revolutionary advance in military capability. Key to this capability is a new generation of military support systems—intelligence sensors, defense suppression systems, and precision guidance subsystems—that serve as "force multipliers" by increasing the effectiveness of US weapon systems. An army with such technology has an overwhelming advantage over an army without it, much as an army equipped with tanks would overwhelm an army with horse cavalry.<sup>10</sup>

Dr. Perry also asserts that we can now pursue a purely conventional deterrent against conventional aggression in Europe and Korea and that our advantage in military technology is mainly responsible for our "thousand-to-one" performance advantage in fighting Iraqi forces.

While Dr. Perry richly deserves an opportunity to salute the systems that he played such a key role in developing, past wars as well as Desert Storm suggest that his conclusions are, at best, incomplete. First, while an army with tanks might well "overwhelm an army with horse cavalry," poorly equipped conventional forces (e.g. Israel in 1948, Chad versus Libya in 1987) have defeated those with vast technological or force advantages. Also, the possession of radically advanced systems is by itself no guarantee of victory. The V2 and the world's first jet fighter couldn't save Hitler. Soviet tanks and attack helicopters failed to provide the edge in Afghanistan. In low-intensity conflict, use of

intangible strengths to thwart technological prowess has made peoples' war an effective alternative to matching the great powers in the area of high-tech weapons. Recall that the American technological edge over the Viet Cong and North Vietnam was far more pronounced than that enjoyed over the Iraqis; yet the United States lost the Vietnam War.

Were Dr. Perry's observations completely accurate, quality conventional forces might exert a stronger deterrent power than they do. Up to now, the most remarkable aspect of purely conventional deterrence has been the frequency with which it has failed, including, most recently, in Kuwait. We can hope that Desert Storm has changed that, but we can't bet the national interest on it, especially since potential aggressors may perceive today's high-technology weapons as less overwhelmingly punishing than their area-weapon predecessors. Compare the widespread destruction from strategic bombing in Europe in World War II with the relatively small damage produced by precision-guided munitions in Baghdad. Future opponents may well accept the risk of surgical strikes if they believe carpet bombing to be improbable.

Dr. Perry's dramatic conclusions are based on a unique and somewhat unusual case. Although he does mention some environmental factors, his analysis of intelligence adjuncts, defense-suppression systems, and precision-guided munitions falls short of an integrated view of this particular conflict. He does not consider the linkage of soldiers and machines to doctrinal concepts, nor does he estimate the effects of other factors, such as the quality of Coalition strategy. In short, we cannot evaluate high technology as an isolated variable. Analysts need more cases—especially ones involving more even matches—before we can draw measured conclusions about the awesome capabilities of today's weapons, as well any newly found deterrent capability they might possess.

Analyzing the human factor is also essential for understanding how thoroughly our attack debilitated the enemy forces. For example, it is difficult to overestimate the psychological disorientation and lack of agility in Iraqi command echelons. It would, in more than a few instances, be hard to overestimate the extent and effect of Iraqi incompetence. In part from the Coalition's excellent deception plan and in part from Iraqi inadequacies, the fog of war covered and mystified Iraqi command elements. A force that fought well when it faced a less capable foe on a more predictable battlefield virtually came apart when confronted by a first-class opponent. One example speaks volumes: the senior Iraqi officers who surrendered to General Schwarzkopf had no idea how many Iraqi prisoners the Coalition held, nor could they believe an accurate trace of US forward positions which were behind what they thought were Iraqi "lines."<sup>11</sup>

With examples like this in plentiful supply, we must exercise great caution in making definitive judgments about the effects of our high-technology weapons.

- *Fifth, every outcome of war is environmentally conditioned.*

War outcomes are affected by environmental factors. Here we use “environment” not just in the sense of geographical and climatic factors, but rather to signify the broad battlefield milieu, the innumerable surrounding conditions under which the tasks of war are accomplished. For example, among the most telling conditions for the great victory in the Desert Storm air war were these: lopsided US technological and skill advantages; open desert terrain; blind and unsynchronized Iraqi air defenses; an inadequate number of air defense weapons and launchers; and an enemy air force that did not fight. Given similar conditions, we can confidently predict success in any future air war! Of course, if you vary these conditions, you vary the degree of difficulty our pilots will face and the degree of success they will achieve.

In its first report on the war, *Conduct of the Persian Gulf Conflict: An Interim Report to the Congress*, the Department of Defense emphasizes environmental conditions for understanding war outcomes. As Secretary Cheney notes in the introduction:

This war, like every other, was unique. We benefitted greatly from certain of its features—such as the long interval to deploy and prepare our forces—that we cannot count on in the future. We benefitted from our enemy’s near-total international isolation. . . . We received ample support from the nations that hosted our forces and relied on a well-developed coastal infrastructure. . . . And we fought in a unique desert environment. . . . Enemy forces were fielded largely in terrain ideally suited to armor and air power and largely free of noncombatant civilians.<sup>12</sup>

Rarely have we had such a cooperative enemy, one who failed to attempt to stop our methodical buildup, even when a few brigade-sized armored raids could have had significant effects on our initial force deployment. His failure to use chemical weapons made our task easier. Finally, in the early stages of the conflict, Saddam’s air force, inexperienced though it was, could have mounted token resistance, but he sent them to a sanctuary on the territory of his former arch-enemy. Such behaviors, to say the least, add to the uniqueness of this conflict and point to the need for experts on political culture and aberrant psychology to play a role in determining what lessons can be drawn from it.

Although large and impressive, Desert Storm was not an all-encompassing case, nor is it one that should, in isolation, be used to radically alter US force structure or budget priorities. Clearly, US forces—even when oriented on regional contingencies—must be prepared for operations across a wide spectrum of potential conflicts. Indeed, some analysts think that low-intensity conflict is a much more likely model for future US engagement than is mid-intensity warfare. A few even believe that our success in Desert

Storm will encourage opponents to opt for other methods, such as terrorism and insurgency.<sup>13</sup> Regarding the higher-intensity end of the spectrum, Secretary Cheney reminded us that the tasks of future war might well be more challenging than those of Desert Storm:

We should also remember that much of our military capability was not tested in Operations Desert Shield and Desert Storm. There was no submarine threat. Ships did not face significant anti-surface action. We had little fear that our forces . . . would be attacked on their way to the region. There was no effective attack by aircraft. . . . Chemical warfare and biological warfare . . . were never employed. American amphibious capabilities . . . were not tested on a large scale under fire. Our Army did not have to fight for long. Saddam Hussein's missiles were inaccurate. As such, much of what was tested needs to be viewed in the context of the unique environment and conflict we are addressing.<sup>14</sup>

### ***Conclusions***

At this point in its evaluation, the Department of Defense has articulated the most obvious lessons of Desert Storm, those that it assumes will be most useful for determining the outline of future defense policy. The DOD report concludes that "five general lessons stand out":

- Decisive presidential leadership set clear goals, gave others confidence in America's sense of purpose, and rallied the domestic and international support necessary to reach those goals;
- A revolutionary new generation of high-technology weapons, combined with innovative and effective doctrine, gave our forces the edge;
- The high quality of our military, from its skilled commanders to the highly ready, well-trained, brave, and disciplined men and women of the US armed forces, made an extraordinary victory possible;
- In a highly uncertain world, sound planning, forces in forward areas, and strategic air and sea lift are critical for developing the confidence, capabilities, international cooperation, and reach needed in times of trouble;
- It takes a long time to build the high-quality forces and systems that gave us success.<sup>15</sup>

These lessons, even allowing for their self-congratulatory tone, are a useful start point for the detailed, multi-level analysis that must be conducted over the next few years by the services, the Joint Staff, and the theater commands. With a new strategy oriented on regional conflict, the US defense establishment must examine in detail a number of issues: campaign planning, anti-missile tactics, defense against chemical attack, and fratricide. The use of reserve forces to support rapid deployments in response to regional conflicts, the issue of women in combat, and our national and theater capability for the production of military intelligence also require careful attention. Similarly, Desert Storm has particularly valuable implications for coalition

formation, the use of economic blockades, combined war funding, the role of the United Nations in regional conflicts, war termination, and post-conflict humanitarian operations. The war may offer no surefire lessons on coordinating policies for arms control and arms sales, but speculation will abound on these issues, and they too must be analyzed.

Desert Storm was a vivid reminder that we must also pay more attention to strategic lift. For example, James Blackwell of the Center for Strategic and International Studies here details our national sealift problem during the prelude to the war:

The Navy had only eight fast sealift ships that were capable of rapidly loading tanks and armored personnel carriers. . . . These were designated to go to Savannah, Georgia, to load out the 24th Infantry Division and could steam to the Persian Gulf in about ten days. But some of the ships were slow to get to port, and once loaded, two of them broke down en route. . . . One of the fast sealift ships, in fact, took so long to repair that it arrived after the slow boats.

The Ready Reserve Fleet of smaller, slower ships fared even worse:

Only 21 percent of the 98 ships in the reserve fleet were ready on time, and 60 percent showed up as much as ten days late during the first month of the deployment. Only 73 ships were able to be readied for service during Desert Shield, forcing the Transportation Command to rely on chartering commercial ships to make up the shortfall in shipping requirements.<sup>16</sup>

In the future, we will have a smaller force, based in the continental United States. We may not have the luxury of a six-month buildup to respond effectively to a regional contingency. We will need reliable air and sea lift, better (though not necessarily in larger quantities) than what we had available for Desert Storm, a model in scale and complexity for the regional conflicts that we'll have to be ready for. Decisions on lift should not be service decisions alone because the problem is interagency in nature and strategic in its effects. Future decisions about strategic air and sea lift require the closest scrutiny by the National Command Authorities.

To develop and disseminate lessons learned, analysis must center not only on input from Desert Storm itself, but also upon the methodology of historical assimilation, that is, upon a sound system for mastering the intricacies of learning from history as well as integrating the resulting lessons into future policy and training efforts. This is far easier said than done. Soldiers in the field will look for simple, easy-to-apply lessons, scholars will favor nuance, and politicians may opt for bumper stickers. Clearly, we could get lost in a thicket of lessons drawn for various purposes and audiences.

Some key consumers, like the Army's National Training Center, should become laboratories to ensure that tactical lessons are tested and

remembered. John Gooch and Eliot Cohen suggest the need for “an institutional locus for applied historical study” to facilitate learning. They further suggest: “Military organizations should inculcate in their members a relentless empiricism, a disdain for *a priori* theorizing if they are to succeed. The ‘learners’ in military organizations must cultivate the temperament of the historian, the detective, or the journalist rather than the theoretical bent of the social scientist or philosopher.”<sup>17</sup>

Given the particular difficulty of learning from success, our Desert Storm learners might do well to study specifically how other complex organizations have done it effectively. While learning must also encompass political and strategic lessons, one interesting case of tactical and operational application was documented in Williamson Murray’s study of the German military’s efforts to learn from their success in Poland in 1939 the wherewithal to prepare for their invasion of France in 1940. This learning exercise was comprehensive, painfully frank, and usefully integrated into German training programs for newly organized units. Murray noted that “the higher the headquarters, the more demanding and dissatisfied were commanders with operational performance.” Command emphasis was to expose, not to paper-over, mistakes. Learning, not blame, was the focus.<sup>18</sup>

In short, institutional integrity enabled the German army to improve on success and not be blinded by it. Their newly mobilized units entered battle with France and Britain having been trained by combat veterans and schooled in the lessons of Poland. Of course, the professionalism of the German army did not, by itself, lead to strategic or political wisdom. Germany’s battlefield successes no doubt encouraged Hitler’s strategic blunders. That too bears some reflection.

Finally, those who attempt to learn from Desert Storm must be aware that history does not teach, it enlightens, not with the searchlight of maxims, but with the reflected glow of analogies. The art of learning from experience begins with understanding linkages and the conditions under which events took place.<sup>19</sup> At the highest level, the application of this knowledge—be it by soldiers or civilians—must be done in a comparative framework, guided by a rigorous skepticism, and ever mindful of the dominant role played by a human opponent who may choose to play by different rules than our own. As Jay Luvaas has noted, “insight gained” might be a more appropriate term than “lessons learned.”<sup>20</sup>

The future of the US armed forces is in the hands of those who must reconcile a rapidly changing strategy, a shifting strategic environment, and a shrinking resource base with the lessons of Desert Storm and other recent military operations. At stake is the fate not only of the best armed forces we have ever had, but, more important, of the nation and its preparedness to meet unforeseen contingencies that may or may not resemble Desert Storm. To meet

the storms of the future in all their infinite variety, our leaders will require the wisdom of Solomon, as well as a sound understanding of where that wisdom came from and what its limitations are.

#### NOTES

I would like to acknowledge the comments, assistance, and constructive criticism of: Professor Eliot Cohen of the Nitze School of Advanced International Studies; Sherwood Goldberg of Worldwide Associates; and faculty colleagues at West Point too numerous to mention.

1. The five observations that form the framework of this article are an attempt to summarize the conclusions of much of the lessons-learned literature as it applies to Desert Storm. I acknowledge the risk that in selecting a few of an enormous set of conceptual lessons, and then citing some of the supporting cases, I too might make an interpretive error. In regard to learning from the cited cases, the reader is reminded that both God and the devil are in the details. The books cited in the notes below provide some of those details.

2. The quotation is from Robert Doughty, *The Seeds of Disaster: The Development of French Army Doctrine, 1919-1939* (Hamden, Conn.: Archon Books, 1985), p. 11. For historical material concerning the world wars, see Jack Snyder, *The Ideology of the Offensive: Military Decision Making and the Disasters of 1914* (Ithaca, N.Y.: Cornell Univ. Press, 1984), especially pp. 9-40 and 99-205; and Barry R. Posen, *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars* (Ithaca, N.Y.: Cornell Univ. Press, 1984) especially pp. 7-80 and 220-24. On the subject of how decisionmakers learn, see Ernest R. May, "Lessons" of the Past: the Use and Misuse of History in American Foreign Policy (New York: Oxford Univ. Press, 1973), especially pp. ix-xiv. For a practical guide for using history in decisionmaking, see Richard E. Neustadt and Ernest R. May, *Thinking in Time: The Use of History for Decision Makers* (New York: Free Press, 1986), pp. 252-70.

3. Robert Jervis, *Perception and Misperception in International Politics* (Princeton, N.J.: Princeton Univ. Press, 1976), pp. 217-82.

4. Joseph Collins, *The Soviet Invasion of Afghanistan: A Study in the Use of Force in Soviet Foreign Policy* (Lexington, Mass.: Lexington Books, 1986), pp. 77, 81.

5. Jay Luvaas, "Lessons and Lessons Learned: A Historical Perspective," in Robert E. Harkavy and Stephanie G. Neuman, eds., *The Lessons of Recent Wars in the Third World: Approaches and Case Studies, Volume 1* (Lexington, Mass.: Lexington Books, 1985), p. 68.

6. William Zimmerman and Robert Axelrod, "The Lessons of Vietnam and Soviet Foreign Policy," *World Politics*, 34 (October 1981), 19-20.

7. For an early look at the Russian/Commonwealth reaction, see Stephen J. Blank, *The Soviet Military Views Desert Storm* (Carlisle Barracks, Pa.: Strategic Studies Institute, 1991), especially pp. 20-26. The author's use of the terms "Russia" and "Russian" in the text does not mean to suggest that he rules out a commonwealth-level reaction. Rather, it was felt that "Russian" more clearly described the most probable focus of activity, as well as the nationality of the relevant strategic culture.

8. Eliot A. Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War* (New York: The Free Press, 1990), pp. 177-80, 192-93.

9. James Blackwell, Michael J. Mazarr, and Don Snider, Project Directors, *The Gulf War, Military Lessons Learned: Interim Report of the CSIS Study Group on Lessons Learned from the Gulf War* (Washington: Center for Strategic and International Studies, 1991), pp. v-vi.

10. William Perry, "Desert Storm and Deterrence," *Foreign Affairs*, 70 (Fall 1991), 66-82.

11. Department of Defense, *Conduct of the Persian Gulf Conflict: An Interim Report to the Congress*, July 1991, p. 4-10.

12. Ibid., pp. I-3 to I-4. As this manuscript was being written in February 1992, the Department of Defense had just completed a new three-volume report over 1000 pages in length.

13. Ibid., p. I-4.

14. Dan Bolger, "The Ghosts of Omdurman," *Parameters*, 21 (Autumn 1991), 38-39.

15. Department of Defense, *Conduct of the Persian Gulf Conflict*, pp. I-4 to I-5.

16. James Blackwell, *Thunder in the Desert* (New York: Bantam Books, 1991), p. 98.

17. Cohen and Gooch, pp. 236-37.

18. Williamson Murray, "The German Response to Victory in Poland: A Case Study in Professionalism," *Armed Forces and Society*, 7 (Winter 1981), 285-98. The quotation is from p. 286.

19. This notion is adapted from Henry Kissinger's description in *White House Years* (New York: Little, Brown, 1979), p. 55.

20. Luvaas, p. 69.